

Should You Use Eggshells for Tomato Plants? (Common Gardening Myth)

Meta Description: Eggshells are heralded as a multi-use magic pill for the garden, but are they really? Here's how to use eggshells for tomato plants.

Relevant video link (How to grind up eggshells for use in the garden):

https://www.youtube.com/shorts/Y_hhXzfkLM

Alternate video (Eggshells don't deter slugs and snails):

<https://www.youtube.com/watch?v=3mm3vhVoPhE>

Whether you're a first-time gardener or a seasoned pro, you've probably heard that eggshells make great plant fertilizers. Is this old wives' tale true? Or is there magic involved in using eggshells to help tomato plants grow?

Eggshells are composed of 95% calcium carbonate, an ideal concentration for fertilizing plants. But they don't break down quickly enough in your soil, so they alone cannot provide the benefits that gardeners often claim. At least, not for the current gardening season. Let's talk about how to use eggshells effectively in your garden.

What are eggshells made of, and what do they contain?

Eggshells are made of calcium carbonate, the same material found in seashells and coral. In addition to calcium, eggshells contain small amounts of other minerals, including potassium, sodium, and magnesium.

Here's the rough breakdown of [what eggshells are composed](#) of:

- 95% calcium carbonate
- 0.3% phosphorus
- 0.3% magnesium
- Minimal but detectable amounts of sodium, potassium, zinc, manganese, iron, and copper

These nutrients are essential for developing a healthy chick, but they can also be helpful for gardeners trying to improve the quality of their soil.

Believe it or not, eggshells are often believed to be a gardener's best friend. They supposedly provide nutrients that plants need to grow, but how, exactly?

The benefits of using eggshells in your garden

Eggshells are a popular kitchen scraps to use as plant fertilizer. Here's what they can help you accomplish in the garden.

Added calcium

Finely crushed eggshells are one method to add calcium to your soil if it is deficient. A soil test kit is one way to determine if your soil will benefit from additional calcium. The problem is that adding whole or partially crushed eggshells won't contribute anything to the soil for years and [even up to a decade](#). To get the benefits of eggshells, they need to be crushed into an extremely fine powder (think of a sand-like consistency.)

I should add that it's very rare for soils to lack calcium. Calcium is one of the most readily available soil elements almost anywhere in the world. But if you aren't certain about your soil's calcium levels, go ahead and test it just to be sure.

Blossom end rot prevention

Some evidence supports that adding finely crushed eggshells can help prevent blossom end rot in tomatoes, which is a common issue. Blossom end rot happens when tomato plants can't access enough calcium for various reasons, and their fruits don't fully develop correctly. The issue results in unsightly tomato fruits with a leathery appearance on the bottom portion of the fruit. Eggshells might help with this, but only if your soil is deficient in calcium.

Reduced food waste

Another notable benefit of using eggshells in your garden is reducing household food waste. In 2018, [over 8.5 metric tons of eggshells](#) were discarded globally, most of which went to a landfill.

The problem is that when eggshells and other food waste break down in landfills, they don't have access to the oxygen they need to break down naturally because they are often stuck in plastic bags. Instead, they break down anaerobically, producing methane gas, [which is harmful to the environment](#). So, using eggshells in your garden and compost is a win for the planet.

Cutworm control

Eggshells are credited with their ability to repel various pests. While not all these claims are factual ([eggshells do not repel slugs](#)), some hold up when tested.

For example, crushing eggshells and dispersing them around your tomato plants is [an effective way to repel cutworms](#). Cutworms enjoy chopping down seedlings in the beginning stages of growth and can be a particularly annoying pest for both beginner and veteran gardeners. Throw the crushed eggshells around the stems of young tomato plants and other garden veggies after mulching around them to deter cutworms.

pH control

[This study by Iowa State University](#) concluded that finely ground eggshells are an effective liming source. This shows that ground eggshells can be helpful for gardeners looking to reduce their soil's acidity levels.

The best way to use eggshells in your garden is to crush them into a fine powder before using them to help them break down quicker in the soil. I'll discuss details on how to do this further along in the article.

The drawbacks of using eggshells as tomato fertilizer

Tomato plants need readily available nutrients. While eggshells will eventually break down and release nutrients, they won't be immediately available to the plant.

In other words, eggshells aren't a magic solution for tomato fertilizer. For tomatoes and most plants, it's better to use a fertilizer already in a form that the plant can use. Gardeners have different methods, but in general, these are the most common tomato fertilization methods:

- Tomato planting hole preparation *[link tomato planting hole article here]* involves a mixture of recommended, reliable tomato plant-boosting soil amendments to the planting holes before transplanting your tomato seedlings.
- Using a liquid fertilizer with nutrients that are immediately accessible to the plant.
- Adding a slow-release tomato fertilizer, usually in a granular form. This will feed the plant throughout the coming months.

Eggshells are a viable way to add calcium to your soil, especially if you crush them finely. There really aren't many downsides to adding crushed eggshells to your garden soil, just don't rely on them as your sole source of fertilizer for your tomato plants.

Adding whole eggs, on the other hand, can be a mistake since that has a high probability of attracting pests and animals to your garden. The last thing you want is some furry creature digging up your tomato plants to reach the eggs you added to the planting hole!

Is there a salmonella risk when using eggshells in your garden or compost?

What is the risk of exposing your family, friends, and pets to salmonella because you used eggshells in your garden or around your tomatoes?

Let's talk about this because it's a valid question.

While it is true that eggshells can harbor bacteria, the risk of contamination is low, and the shells will be exposed to high temperatures when composting, which will kill any bacteria present.

If you plan to use eggshells as a fertilizer or soil amendment, you'll likely be drying out those eggshells in the oven so that you can grind them into a fine powder. The eggshells only need to be exposed to temperatures of 77 C (170.6 F) for one second or more to kill salmonella, so drying your eggshells in the oven will accomplish this.

Always thoroughly wash your hands after handling eggshells to reduce worry about contracting salmonella. In short, while there is a small risk associated with using eggshells in the garden, the benefits outweigh the risks and there are multiple steps you can take to greatly minimize that risk.

How to prepare eggshells for use in your garden

Start collecting your eggshells in an egg carton or some other container as you cook throughout the week. Once you have enough eggshells, it's time to prep them for your garden or compost.

- First, wash the eggshells to remove any dirt or bacteria. Don't worry about crushing them up yet - they'll be much easier to crush into a powder after they've been fully dried out in the oven.
- Add the eggshells to a baking sheet or oven-safe glass dish and bake the eggshells next time you need to preheat your oven to cook a meal. The preheating time is usually sufficient to dry the eggshells and make them more brittle. This will kill any remaining bacteria, including salmonella, and it will make the shells much easier to grind up. If you aren't cooking anything else in the oven anytime soon, throw your eggshells in the oven at 80-93 C (175-200 F) for around 30 minutes.
- Once the eggshells are dry, crush them into a fine powder. You can do this with a mortar and pestle or by placing them in a blender, spice grinder, or

coffee grinder. They must be crushed into a fine powder to be effective in your garden within the next few years.

- Add eggshell powder to a large mason jar or another airtight container to store it for later use. If you plan to store it, I recommend baking it longer to ensure it's fully dry. Add a silica packet or another moisture absorber to minimize the risk of mold.
- When you're ready to use the eggshell powder, add it to your compost pile or direct it into planting holes when planting new tomato plants. For best results, mix the eggshells into the soil or compost evenly.

By following these simple steps, you can ensure that your eggshells provide nutrients and improve the health of your garden. And you're finding an inventive way to avoid unnecessary food waste!

Eggshell vinegar fertilizer for tomato plants

Another way to use eggshells for your tomato plants is to develop an eggshell vinegar fertilizer to water your plants with or use as a foliar spray. The benefits of doing this are mainly to supply your tomato plants with more calcium to avoid blossom end rot.

To make a quick-absorbing calcium fertilizer out of eggshells, you'll need to add a bit of white vinegar to convert the insoluble calcium carbonate into soluble calcium. Then, you can water your plants as usual with the solution.

To make an eggshell vinegar fertilizer, follow these steps:

- Rinse, bake, and finely crush your eggshells as described in the section above.
- Add 2 TBS of crushed eggshell powder and 2 TBS of white vinegar to a bowl, mix thoroughly, and let it sit for a few hours. It will bubble up, and you'll notice a chemical reaction.
- Slowly add the mixture into a one-gallon jug that will store your fertilizer solution. You can use a measuring cup and dilute the mixture with water so it's easier to pour into the jug or container.

- Fill the rest of the jug or container up with water. Add up to a gallon of water. Mix the solution and let it sit for up to 10 days before using it to water plants or as a foliar spray.

Additional ways to improve the health of your tomato plants

In addition to regular watering and fertilizer, you can do a few other things to keep your tomato plants healthy.

- Adding some organic matter to the soil will help to provide nutrients and improve drainage.
- You can mulch around the plants [[link mulching article](#)] to help retain moisture and prevent weeds from competing for resources.
- Make sure to remove any yellow or brown leaves, as these can harbor diseases that can spread to the rest of the plant.
- Check for diseases and pests frequently and take action as quickly as possible to mitigate the issue.
- Remove any tomato hornworms right away if you see them. You can relocate them or feed them to chickens as a treat.
- Read more articles about tomato plant care to expand your knowledge base and your ability to recognize various issues that come up when growing tomatoes.

Following these tips ensures that your tomato plants stay healthy and productive all season long.

FAQ About Eggshells for Tomato Plants & Gardening

Can eggshells help prevent slugs and snails?

No, eggshells haven't been proven to prevent slugs or snails. Slugs and snails will crawl over sharp objects and aren't deterred by them. Instead, slugs and snails are deterred by physical barriers, salt, and diatomaceous earth.

Why do I need to crush eggshells before using them in my garden?

Eggshells in large chunks take up to ten years to decompose, meaning they will take up to ten years to provide any benefit to your tomato plants or the rest of your garden. Crushing your eggshells into a powdery consistency will create more surface area, allowing the shells to break down faster and benefit your plants.

How do you apply eggshells to tomato plants?

Finely crush dry eggshells in a blender after drying them out in an oven, then add the eggshell powder to your tomato planting holes or around the base of your tomato plants after transplanting your seedlings outdoors.

How often should I add egg shells to tomato plants?

Reapplying eggshell powder to your tomato plants yearly is recommended if you use eggshells in your tomato fertilizer regimen. You can also sprinkle the eggshell powder into your compost and use the compost around your tomato plants for the same benefits.

Can you put too many eggshells in your garden?

No, not really! Unless you aren't crushing your eggshells into a fine powder. Eggshells take years and years to decompose naturally and are often found at archeological dig sites. So, if you plan to use eggshells in your garden, grind them into a fine powder for maximum results.

Final thoughts on eggshells and tomato plants

Finely crushed eggshells effectively provide nutrients to your tomato plants and garden and improve your soil health. Avoid using them whole or in large chunks because that will present virtually no benefit to your plants.

By following the steps in this article, you can ensure that your eggshells provide the benefits you desire while minimizing any contamination risk and avoiding wasting your time.